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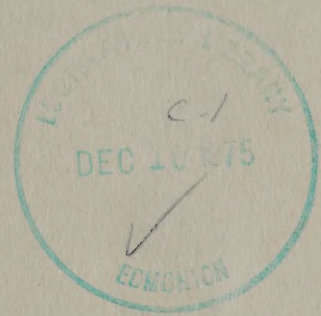
Sessional Paper No. 54/75

1 Session, 18 Legislature

Annual Report

March 31st

1975



Alberta
MINES AND MINERALS

LL Dept. 8



ENERGY AND NATURAL
RESOURCES

Office of
the Minister

Sessional Paper No. 54/75
1 Session, 18 Legislature

319 Legislative Building
Edmonton, Alberta, Canada T5K 2B6

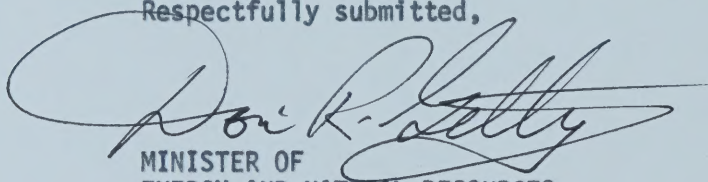
December 9, 1975.

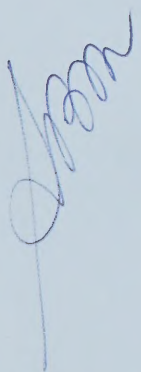
TO HIS HONOUR

THE LIEUTENANT GOVERNOR:

I have the honour to submit herewith
the Report of the Department of Mines and Minerals
for the fiscal year ended March 31st, 1975.

Respectfully submitted,


MINISTER OF
ENERGY AND NATURAL RESOURCES.



**Annual Report
March 31st
1975**

Alberta
MINES AND MINERALS

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To His Honour
Ralph G. Steinhauer
Lieutenant Governor of the Province of Alberta

Sir:

I have the honour to submit the Annual Report of the Department of Mines and Minerals for the fiscal year ended March 31st, 1975.

Respectfully submitted

BILL DICKIE, Q.C.,
Minister of Mines and Minerals



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Office
Of The
Deputy
Minister

Alberta
MINES AND MINERALS

TWENTY-SIXTH ANNUAL REPORT OF THE

DEPARTMENT OF MINES AND MINERALS

TO THE HONOURABLE BILL DICKIE, Q.C.,
Minister of Mines and Minerals

Sir:

I have the honour to present the Annual Report of the Department of Mines and Minerals for the fiscal year ended March 31, 1975.

Production of petroleum liquids during 1974 was down for the first time since 1958. Crude oil, both conventional and from the oil sands, fell from 1,481 to 1,410 thousand barrels per day while liquids extracted from the processing of natural gas declined slightly from 307 to 299 thousand barrels per day. The overall result was a 4.4% drop in total liquids production from 1,788 to 1,709 thousand barrels per day.

The decline was entirely due to a 21% drop in exports to the United States to 788 thousand barrels per day. Refiners in the midwest states utilized domestic supplies as much as possible because of generally lower prices than Canadian oil which included a Federal government export tax ranging from \$2.20 to \$6.40 per barrel. Reduced shipments to westcoast states resulted from utilization of much of the capacity of the Trans Mountain Oil Pipe Line to move oil via the Panama Canal to eastern Canada during the time that Saudi Arabia reduced her exports.

Export levels are expected to continue to decline because of limitations imposed on January 1, 1975 by the National Energy Board. The Board will assess surplus Canadian producibility, from time to time, and have stated that a possible cut-off could occur by 1982 if there is no significant increase in forecast producibility. Production from the oil sands is not expected to change this situation because of the huge expenditures required and the long lead-time from start of construction to production.

Production of marketable natural gas rose slightly from 2,003 to 2,013 billion cubic feet. The United States market decreased 39 billion cubic feet to 726 billion cubic feet (36% of Alberta production), while Ontario increased its purchases from 619 billion cubic feet to 652 billion cubic feet (32% of Alberta production).

Sulphur production from natural gas processing plants was down from 6,991 to 6,777 thousand long tons. Prices, however, rose from an average \$5.84 to \$13.50 per ton and had

increased further to \$23.29 during March. These price rises result from a world-wide boom in the fertilizer industry which helped Alberta exports outside Canada to rise 23% to 4,130 thousand long tons last year.

Other important developments in price occurred last year. An energy meeting of Canada's first ministers produced a temporary agreement to raise the wellhead price of crude oil to \$6.50 a barrel effective April 1, 1974. This had the effect of raising average prices for conventional light and medium crude oil from \$3.52 in 1973 to \$5.81 per barrel in 1974. The agreement also had the effect of providing subsidies for eastern Canada from export tax proceeds and keeping the price about \$5. per barrel below world levels.

Average field prices for natural gas were up from 18.4 cents per thousand cubic feet (Mcf) to 30.0 cents/Mcf. A progress report from the Energy Resources Conservation Board indicated that natural gas under contract or offered for contract averaged 46 cents/Mcf at June 30, 1974 and that contracts for approximately 97% of the natural gas removed from Alberta had been or were being renegotiated. These developments result from the governments concern earlier that natural gas was leaving the Province at much less than fair value and that additional export applications would not be granted until provisions were met in the new gas pricing policy.

Important natural gas reserves were proved in the Suffield Block last year. The evaluation, which started in 1973, resulted in the completion of 76 capped gas wells and one potential gas well. Sixty-five of the wells are dual-zone producers and 11 are single-zone. The Alberta Crown owns 95.1% of the mineral rights and development of the 2.7 trillion cubic feet of reserves will be carried out in conjunction with private industry.

Including the drilling in the Suffield Block, 3,489 wells were drilled in Alberta during 1974. Development drilling totalled 2,241 wells, an increase of 271 over 1973, and resulted in 1,284 gas and 569 oil wells. This was an increase over the year 1973 of 323 gas and 89 oil wells, respectively. Exploratory drilling was down from 1,543 to 1,248 wells and gas discoveries dropped 29 to 384 while oil discoveries

were down 32 to 69. Most of the discoveries were minor, and with high production levels oil reserves declined 255 million barrels to 6,365 million barrels. Natural gas reserves rose 3.2 trillion cubic feet to 52.8 trillion cubic feet. Only 0.3 trillion cubic feet were attributed to 1974 discoveries, however, and the main part of the increase resulted from a reassessment of previous discoveries and development drilling during the year. Reserves of natural gas liquids were down 98.5 million barrels to 1,958 million barrels, largely due to reduced propane exports via the Cochrane plant and increased production of pentanes plus at the Kaybob South gas processing plant.

The oil sands continued to occupy a major portion of the energy news. Costs on the Syncrude Canada Limited project escalated rapidly since construction began in September 1973 and one of the partners in the four-company consortium pulled out because of other major financial commitments and uncertainty about future crude oil prices. A series of meetings early in 1975 between the remaining three companies and the governments of Canada, Ontario and Alberta led to an agreement whereby the governments agreed to invest in the vacated share of 30%. The Federal government has agreed to invest \$300 million for a 15% interest, Ontario will put in \$100 million for a 5% stake and Alberta will invest \$200 million for a 10% share. The three initial partners will retain 70% interest but will have had to lay out an additional \$400 million, increasing their investment to approximately \$1.4 billion. The Alberta government, through the Alberta Energy Company, will own the utility plant and pipeline to Edmonton outright; they are estimated to cost \$300 million and \$100 million, respectively, making total Alberta funding about \$600 million.

Production from the Great Canadian Oil Sands Limited plant was down five thousand barrels per day to 46 thousand barrels per day, largely due to mechanical problems early in the year and a pipe line break in late 1974. Authorized daily rate of production from the plant was increased from 45 thousand to 65 thousand barrels per day but the operator intends to phase in higher production levels more slowly to avoid sudden and undue stress on facilities.

As part of "Energy Breakthrough" the Alberta Oil Sands and Research Authority was created. The Authority will administer a \$100 million fund to be available for research and technology over the next five years in an effort to develop techniques to recover the 225-250 billion barrels of "synthetic" crude oil from the four major oil sands deposits in northern Alberta. The Authority will be encouraging private industry, and particularly existing lessees, to

expand their research efforts in cooperative programs between industry and the Authority.

Steps were taken in 1974 by the Alberta government to encourage and stimulate exploration. Most of the drilling in Alberta in recent years has been undertaken by small independent explorers and a gas and gas co-products royalty plan was designed to encourage continued drilling by these companies to discover new natural gas reserves. The system contains an incentive in that a lower rate of royalty is charged on discoveries of future or new natural gas and credits may be established and used against bonus payments for land rights. Deeper drilling in the Foothills is encouraged by allowing larger credits to be accumulated than in the Plains or Northern areas. If oil is found in an incentive well certified after January 1, 1974 (and that commenced drilling before December 31, 1977) it shall be exempt from royalty for a period terminating five years after the date on which production commences. The royalty exemption for gas is for two years from start of production.

Natural gas royalty regulations were amended to expand the definition of "new gas" to include all natural gas reserves that have not yet come on stream for market as well as portions of natural gas pools where the pool was discovered earlier than January 1, 1974 but extended by drilling after that date. The amended regulations remove any penalty imposed on those producers who had wells capped for lack of markets. Also, the royalty on "new gas" was made lower than that for "old gas" in order to encourage exploration for new resources.

New oil royalty rates commenced April 1, 1974 to account for price increases and to supplement previous rates which applied only to production volumes. The supplementary rate on "old" oil is 65% on the amount of any price increase over prices existing at March 31, 1974; the supplementary rate for "new" oil will be 35%. Generally, "new" oil would be from a new well or that portion of the oil from an enhanced recovery scheme established on or after April 1, 1974.

Royalty rates on natural gas and its co-products were raised January 1, 1974. The new rates will rise from a minimum 22% to 65% of all price increases over 72 cents/Mcf at the well-head. Previously, the maximum royalty was 16-2/3% and is now 37.8% on gas sold for 72 cents with the percentage increasing if the price exceeds that amount. The royalty on propane, butanes, and liquid petroleum gases was a flat 16-2/3% and is now the same as the rate on natural gas from which these liquids are extracted. The rate on pentanes plus was also a flat 16-2/3% prior to January 1, but the minimum is now 22% with subsequent rates

depending on the selling price and a par price or premium of at least \$4.41 per barrel which can be periodically changed by Order in Council. The rate on sulphur has always been 16-2/3% and remains unchanged.

The Albert government announced on December 12, 1974 a number of significant and substantial revisions and modifications to its royalty and corporate tax system in order to strengthen the petroleum industry. In order to do this before an increase in crude oil prices, Premier Lougheed announced the Alberta Petroleum Exploration Plan. Its primary emphasis is directed towards improving the cash-flow position of smaller companies who have proportionately been the most adversely affected by the Federal tax provisions of November which disallowed royalty payments on oil and gas as a tax deduction. The Plan is directed also towards petroleum companies pursuing active exploration programs within Alberta; however, it is also of significant benefit to all exploration and producing companies operating in the province. Main revisions and modifications of the Plan are:

- refund of Alberta corporate tax on royalties
- reduction of royalty rates on oil to help with inflationary spiral

— credit on royalty tax up to a maximum \$1 million/taxation year equivalent to federal corporate taxes on royalties paid to Alberta; this will take in all companies except about 30 of the large producers

— modification of royalty rates on "old gas" which will provide about \$60 million in cash-flow, based on the wellhead prices averaging 90 cents/Mcf, which should encourage exploration for gas in the Foothills where drilling costs are high and much of the gas is "sour".

— expansion of Exploratory Drilling Incentive System by increasing credits

— reduction of royalty rate on crude oil production as the price increases above \$6.50 a barrel.

Information on coal may be obtained from the Energy Resources Conservation Board at 603 - 6 Avenue S.W., in Calgary.

Additional reports on the activities of the department are contained in the reports which follow.

Respectfully submitted,
G.B. Mellon, P. Geol.,
Deputy Minister

Personnel
Office

Alberta
MINES AND MINERALS

PERSONNEL

Report of the Personnel Officer

G. D. DAWSON

Organizational change continued to dominate personnel activity over the past fiscal year. One of the major changes consisted of the establishment of the new Economic Planning and Information Systems Division which has been charged with the responsibility of providing information, resource analysis, and policy generation services to the Department and Government. The new Division is comprised of: the Economic and Financial Analysts; the Systems Manager; the Registrar; the Library; and the Information Officer. Increased emphasis on the auditing of Crown Revenues has resulted in structural modifications to the Finance Division. The former Crown Revenues Branch has been split into three new Branches: Gas Royalty Calculation, Gas Cost Allowance, and Oil Royalties. The Geophysical Branch of the Minerals Division has been restructured under a Manager of Geophysics who is responsible for the administration of activities under the Geophysical Regulations as well as the administration of Geophysical Incentive and Exploratory Drilling Incentive programs. These structural changes are reflected in the following organization chart.

The number of classification submissions remained high with most of the increased volume attributed to the creation of new positions and the changes in existing job descriptions as a result of re-organization.

Interest in staff development grew significantly over the past twelve month period. A total of 17 employees participated in external courses and seminars on such topics as Employee Counselling and Records Management while an additional 43 employees participated in Government operated courses covering a variety of Supervisory and Management activities.

In addition to providing a full range of

personnel services to the Department, the Personnel Office assisted with the creation and staff establishment of the Alberta Oil Sands Technology and Research Authority.

As of March 31, 1975 there were 251 positions in the Department of which 232 were occupied. This represents an increase of 20 positions (8.7%) over last years total.

Personnel transactions for the year are shown in Table 1 and numbers of occupied positions, by departmental division and type within each division, are shown in Table 2. Following this is an organization chart of the Department as of March 31, 1975.

Personnel Transactions

Table 1

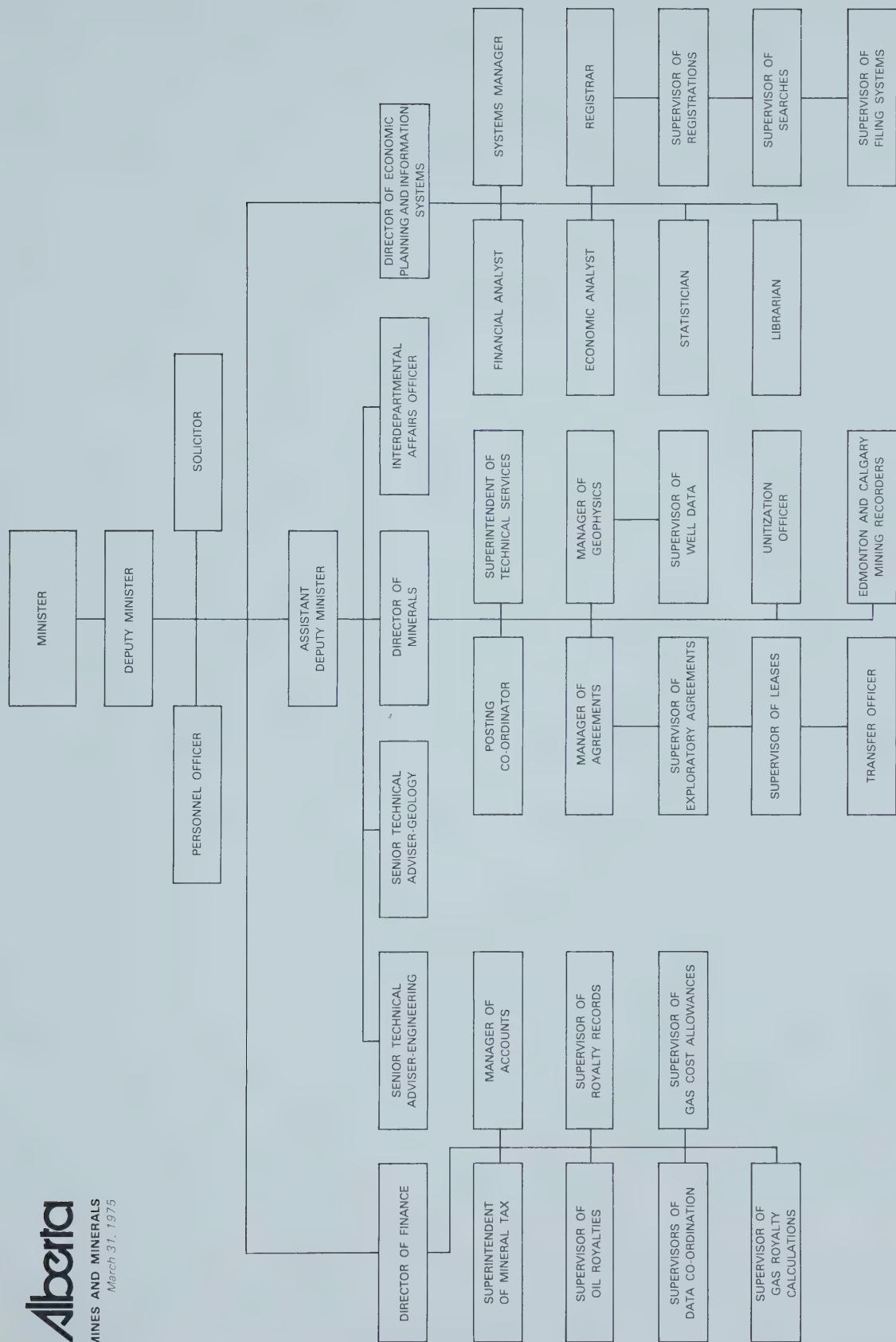
Total Competitions	57
Classification Submissions	
— Creation	20
— Up-dating	53
— Re-Classification	
Change	19
No Change	9
— Appeals	None
Commencements	83
Terminations	54
Transfers to other Departments	24

Occupied Positions

March 31, 1975

Table 2

	Managerial	Professional	Administrative	Clerical	Technical	Other	Total	Per Cent
General Administration	5	1	1	9			16	6.4
Finance	1			1			2	0.8
— Gas Royalty Calc.				11			11	4.4
— Gas Cost Allowance			1	4			5	2.0
— Oil Royalty			1	11			12	4.8
— Accounts & Support	1		1	39			41	16.3
— Mineral Tax	1		1	16			18	7.2
Minerals	1			1			2	0.8
— Agreements	3			30			33	13.1
— Unitization	1			1			2	0.8
— Technical Services	1			5	23	3	32	12.7
— Posting	1			1			2	0.8
— Geophysics	1		1	11	3		16	6.4
— Mining Recorder	1		1	4			6	2.4
Mineral Planning	1	1		1			3	1.2
Economic Planning and Information Systems	1			1			2	0.8
— Economic & Finance Analysis	2	1					3	1.2
— Systems	1						1	0.4
— Registrar	2			39			41	16.3
— Library		1		1			2	0.8
— Information		1					1	0.4
TOTAL	24	5	7	186	26	3	251	100
PER CENT	9.6	2.0	2.8	74.0	10.4	1.2	100	



Chief Officers

DEPARTMENT OF MINES AND MINERALS

MARCH 31st, 1975

MINISTER'S OFFICE

HON. BILL DICKIE, Q.C., MINISTER
R. D. Orman Ministerial Assistant

DEPUTY MINISTER'S OFFICE

DR. G. B. MELLON DEPUTY MINISTER
E. K. Spady Solicitor
G. D. Dawson Personnel Officer

MINERAL RESOURCE PLANNING

M. J. DAY ASSISTANT DEPUTY MINISTER
R. J. Pow Senior Technical Adviser - Geology
L. Mazaruk Senior Technical Adviser - Engineering
L. J. Cooke Interdepartment Affairs Officer
D. Morgenstern Resource Planner

MINERALS DIVISION

F. J. HOLUBOWICH DIRECTOR
G. Fulford Manager - Geophysics
D. V. Rees Conciliation Officer
C. R. Smith Supervisor - Well Data
B. B. Goltz Manager - Agreements
P. Batke Supervisor - Exploratory Agreements
E. R. Silver Supervisor - Leases
E. M. E. Anderson Transfer Officer
J. M. Novak Superintendent - Technical Services
W. H. Roy Posting Coordinator
A. J. Lauder Unitization Officer
B. R. Nimchuk Mining Recorder - Edmonton District
D. C. MacMillan Mining Recorder - Calgary District

ECONOMIC PLANNING & INFORMATION SYSTEMS DIVISION

M. F. KANIK DIRECTOR
R. Askin Systems-Manager
Vacant Senior Financial Analyst
Vacant Senior Economic Analyst
E. Chernenkoff Librarian
J. J. Heron Statistician
D. Thompson Registrar
E. D. Barnard Supervisor - Registrations
A. Klohn Supervisor - Searches
W. McGechie Supervisor - Filing Systems

FINANCE DIVISION

L. H. MONTGOMERY DIRECTOR
B. P. P. Muir Manager - Accounts
J. P. Charrois Supervisor - Accounts Receivable
I. M. Harrington Superintendent - Mineral Tax
N. B. Adam Assistant Superintendent
S. F. Pugh Supervisor - Oil Royalties
I. J. McKellar Supervisor - Gas Cost Allowances
R. J. Vance Supervisor - Gas Royalty Calculations
C. Kinsman Supervisor - Royalty Records

Office
Of The
Assistant
Deputy
Minister

Alberta
MINES AND MINERALS

MINERAL RESOURCE PLANNING

Report of the Assistant Deputy Minister

MICHAEL J. DAY

Mineral Resource Planning encompasses a number of areas of mineral management that have grown in importance in recent years. In particular, we have seen the emergence of a policy requiring the examination of land for major conflicting uses prior to the acquisition of mineral rights by industry. This examination takes place by committees which represent departments, boards and agencies having appropriate concerns for the land surface.

In the case of coal, legislation designed to protect the environment also provides for intensive interdepartmental examination of exploration, development and reclamation proposals. This department is, therefore, now taking an active part in land use planning throughout the Province, particularly in the Eastern Slopes of the Rockies.

The acquisition of adequate mineral inventories is an important component of Mineral Resource Planning. Funded by this department, exploratory drilling has been carried out in the Primrose Lake Air Weapons Range to examine the northerly extent of the Cold Lake

Oil Sands Deposit. Thermal Plains coal, in particular the Ardley seam, has been examined by drilling in a broad band across central Alberta, from outcrop to a depth of 1000 feet. In the Athabasca Oil Sands Deposit the department is funding surficial geology and groundwater programs.

An awareness also exists for mineral planning at the national level. Although mineral resources are largely owned by the provinces, their development must also make economic sense nationally and internationally. Provincial departments of mineral resources have been meeting with their federal equivalent to define mineral policy objectives for Canada and to examine opportunities for choice in the derivation of policies acceptable to both senior levels of government.

Reporting to the Assistant Deputy Minister are the Minerals Division, the Interdepartmental Affairs Officer, the embryonic Resources Planning group and the Senior Technical advisers in geology and engineering.

**Minerals
Division**

Alberta
MINES AND MINERALS

MINERALS DIVISION

Report of the Director

F. J. HOLUBOWICH

The minerals in approximately 80% of the lands in Alberta are owned by the Crown and the remaining 20% of the mineral rights are owned in various proportions by the Crown in right of Canada and private companies or individuals.

The Minerals Division is responsible for administering the mineral rights owned by the Province of Alberta. Through the application of the provisions of The Mines and Minerals Act and the regulations thereunder, mineral rights are reserved or leased by persons or companies engaged in exploring for and developing the Crown's minerals.

Exploration for and development of Crown minerals may be conducted only after an agreement in favor of an operator has been issued by the department. The Minerals Division receives all applications for such agreements, conducts all the necessary investigations and performs all functions relating to the issuance and administration of the agreements. Mineral rights in Alberta are not sold but are granted under lease, reservation, permit, licence or other form of agreement for a specified and limited period of time.

The Minerals Division, which includes the Edmonton and Calgary Mining Recorder offices, offers for sale by public tender the right to obtain leases, reservations and permits of petroleum and natural gas rights as well as licences of natural gas rights. Four sales of Crown Reserve Leases were held on a quarterly basis and the Division also held nine Crown Reserve Drilling Reservation sales, five Crown Reserve Natural Gas Licence sales, 10 Reservation sales, seven Permit sales, 23 Lease sales in the Calgary District and seven Lease sales in the Edmonton District. These sales related to Crown petroleum and natural gas rights and Figures 1 to 8 inclusive indicate the total bonus revenue received as well as the total acreage that was sold at each type of sale. The report of the Director of Finance shows the breakdown of the total revenue received from these sales as well as the revenues received during the year from rentals, fees and penalties associated with leases and exploration agreements administered by this Division.

The principal minerals that have been found and developed in Alberta to date are petroleum and natural gas, coal, limestone, sandstone, salt and sodium sulphate. Small quantities of clay have also been produced. Figure 9 in this report

indicates quantities of each mineral, other than petroleum, natural gas and gas products, that were produced from Crown minerals in Alberta during the fiscal year. Information as to quantities of crude oil, natural gas and products obtained by processing natural gas is available from the annual statistical summary of the Energy Resources Conservation Board at 603 - Sixth Avenue, S.W., in Calgary.

During the fiscal year, the Minerals Division was reorganized with the establishment of the following positions: (a) Manager of Agreements, (b) Supervisor of Leases, (c) Supervisor of Exploration Agreements, (d) Posting Coordinator, (e) Unitization Officer and (f) Manager - Geophysics. Each of these officers reports to the Director of Minerals and is in charge of existing programs within the Minerals Division.

1. Exploration Agreements and Leases -

The business transacted during the year with respect to various mineral agreements is illustrated in Figures 10 to 15 inclusive.

2. Unitization - During the fiscal year 15 agreements pursuant to Part 8 of The Mines and Minerals Act became effective for unit operation of petroleum and natural gas properties. Following is a list of the agreements:

Craigend Gas Unit No. 1
Crossfield Rundle F Unit
Enchant Gas Unit
Hussar Unit No. 1
Jarrow Gas Unit No. 2
Lobstick Gas Unit No. 1
Medicine Hat Hilda Gas Unit
Medicine Hat Hilda Gas Unit No. 1
Meekwap D-2A Unit No. 1
Minnehik-Buck Lake Pekisko Unit No. 2
Pembina Belly River "U" South Unit
Ranfurly Gas Unit
Sullivan Lake Gas Unit No. 1
West Viking Gas Unit No. 1
Wintering Hills Viking Gas Unit No. 1

In addition 11 unitized areas were enlarged and they are as follows:

Carson Creek North Beaverhill Lake Unit No. 1
East Taber Mannville "D" Unit No. 1
Hamilton Lake Viking Oil Sand B-Pool Unit
Joffre D-2 Unit No. 1
Mannville Gas Unit

Medicine River Glauconitic "A" Unit No. 1
 Nipisi Gilwood C Unit
 Swan Hills Unit No. 1
 Wainwright Unit No. 2
 Willesden Green Cardium Unit No. 9

3. Geophysical and Well Data - Toward the end of the fiscal year, the Division acquired the services of a professional Geophysicist to assume the post of Manager - Geophysics to administer the Geophysical Incentive Program Regulations which were filed on February 11, 1975. These regulations, which constitute a part of the Alberta Petroleum Exploration Plan, were designed to increase exploration for petroleum and natural gas in the Province. Under these regulations the Minister may, after certifying a seismic survey as a geophysical incentive program, determine the amount of credit to which a licensee and his participants are entitled for having conducted the seismic survey. The credit so established may, upon the written request of the licensee, be applied in satisfaction of:

- (a) moneys payable by him pursuant to dispositions under Part 5 of The Mines and Minerals Act, or
- (b) taxes levied under The Freehold Mineral Taxation Act.

This branch also administers the Exploratory Drilling Incentive Regulations and under these regulations there were 624 incentive exploratory wells certified during the fiscal year. Credits totalling \$19,064,064 were established and these credits also may be applied in the same manner as the credits established under the Geophysical Incentive Program Regulations.

During the fiscal year, the Minerals Division checked and recorded 3,919 well licences issued by the Energy Resources Conservation Board. Following is a statement categorizing the various types of well licences processed.

Crown	2,595
Alienated	1,088
Test Holes	5

Injection	28
Water	31
Evaluation	12
Experimental	17
Oil Sands Evaluation	134
Observation	4
Lpg's	3
Salvage Casing	2

TOTAL 3,919

During 1974 there were 3,489 wells drilled, of which 1,250 were exploratory, 2,099 were development and 140 were outpost. Total footage drilled was 11,993,284 feet compared with 12,645,697 feet during the previous year. At December 31, 1974, there were 14,819 oil wells and 5,344 gas wells capable of production. An additional 3,469 gas wells were capped.

Other activities of this branch of the Division included numerous inspections and investigations of geophysical and seismic operations conducted by those holding Geophysical Licenses and Permits in the Province. During the fiscal year 34 new Geophysical Licenses and 17 new Geophysical Permits were issued. In addition, 78 Geophysical Licenses and 66 Geophysical Permits were renewed.

4. Technical Services - This branch provided the draughting, duplicating and diazo print needs of the Department. In addition, the branch maintained a master inventory of stationery, supplies and furniture.

Numerous plans were drawn for applications for mineral leases, rental reductions, transfers, surrenders, requests for disposal of Crown reserves in various sales and other projects. A new series of maps has been started indicating coal dispositions. These maps are drawn to a scale of 1 inch to 2 miles and comprise an area of 20 townships. The series of maps indicating oil and gas wells and field boundaries was updated weekly. These were 98 field changes in the past year and 3,900 new wells were added.

ALL SALES

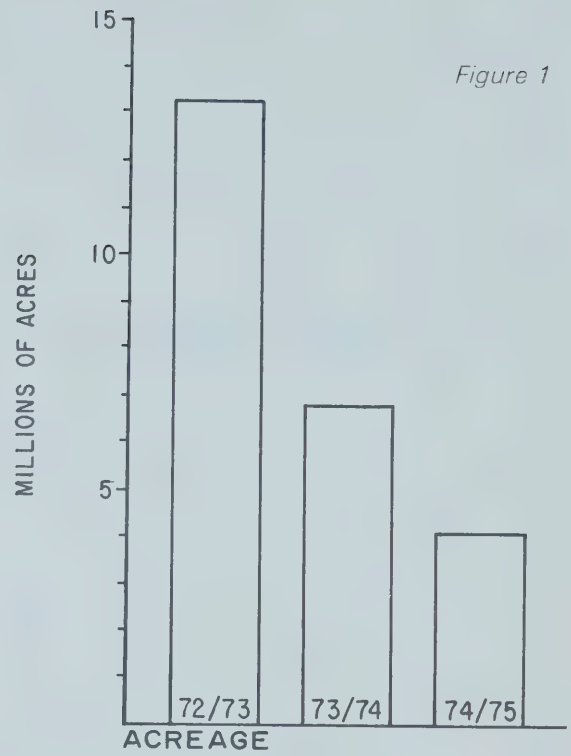
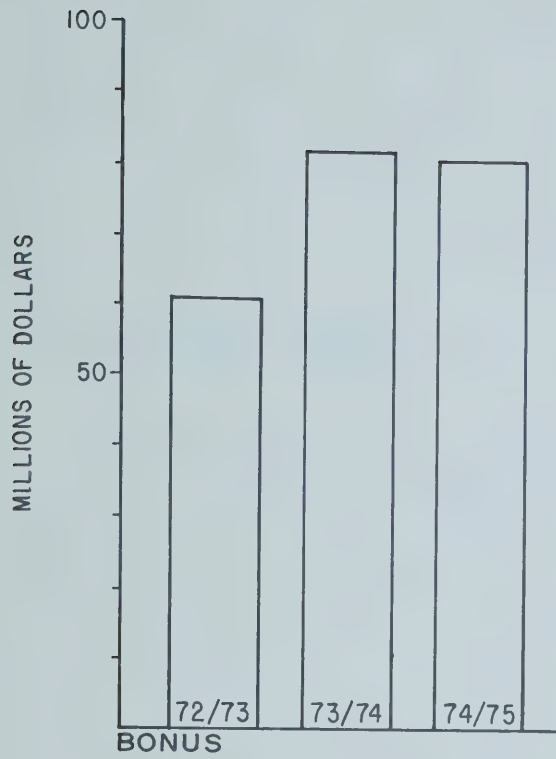


Figure 1

BLOCK 'A' LEASES

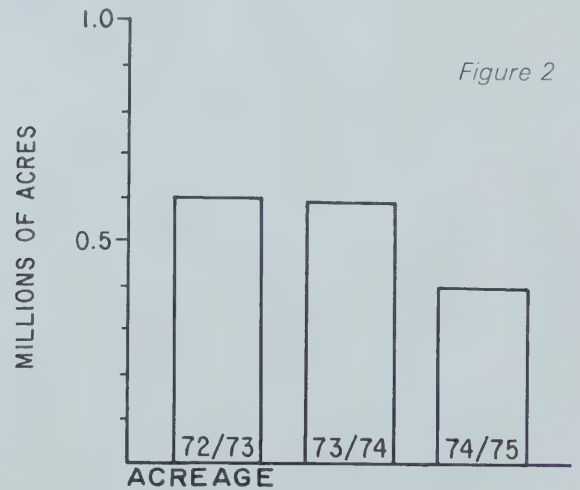
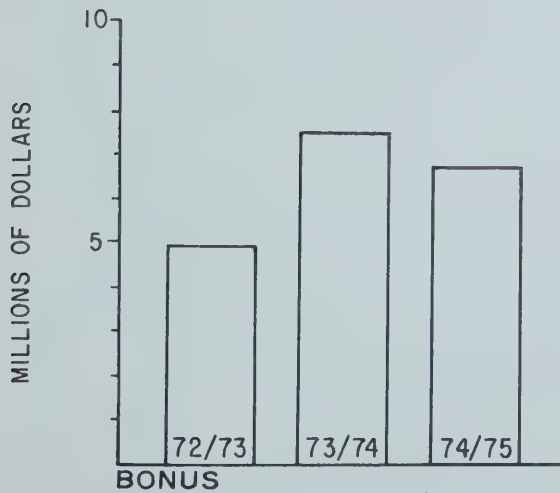


Figure 2

CROWN RESERVE LEASES

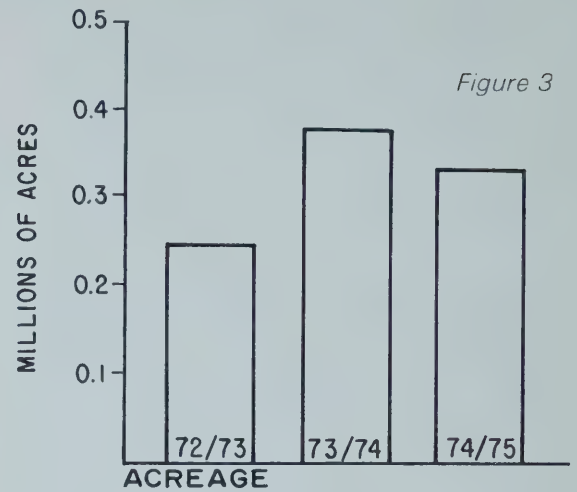
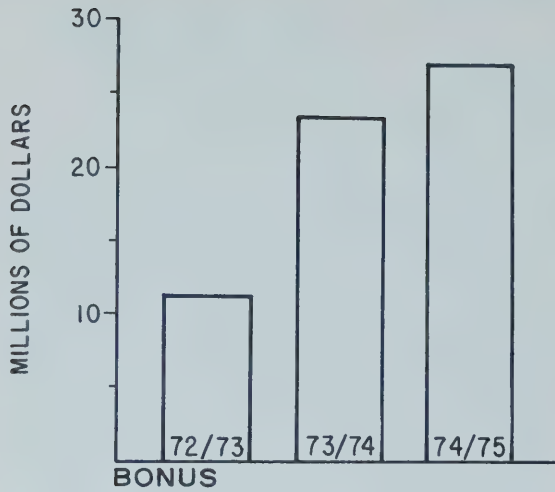


Figure 3

RESERVATIONS IN PROVINCIAL RESERVES

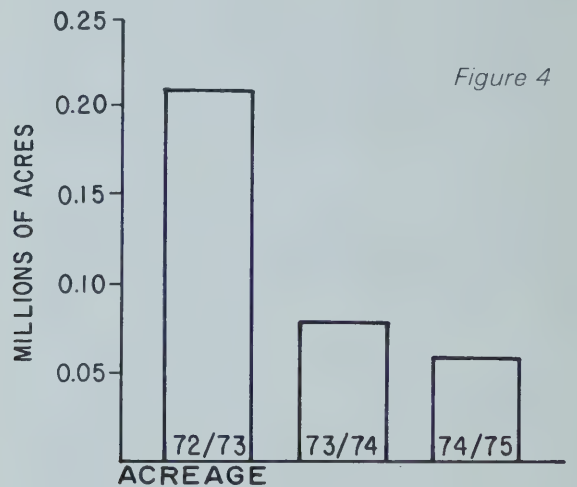
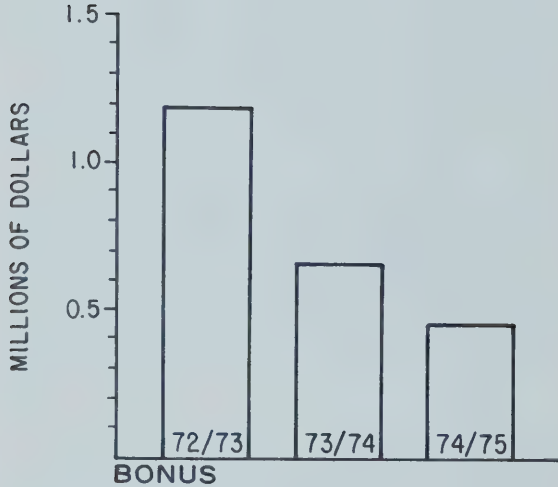


Figure 4

DRILLING RESERVATIONS

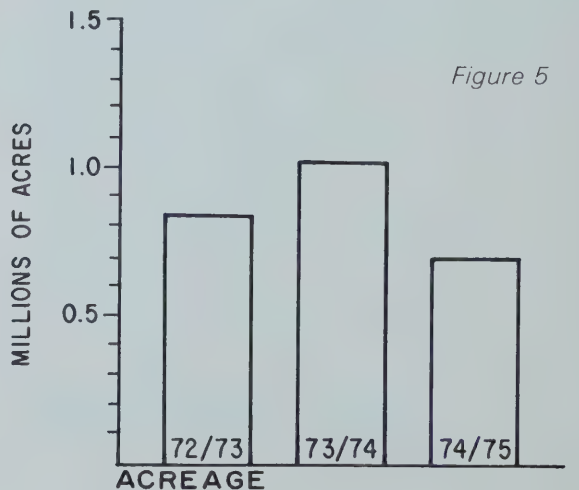
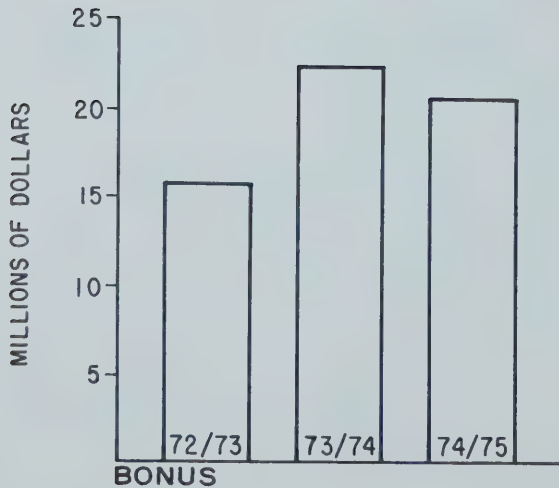


Figure 5

NATURAL GAS LICENCES

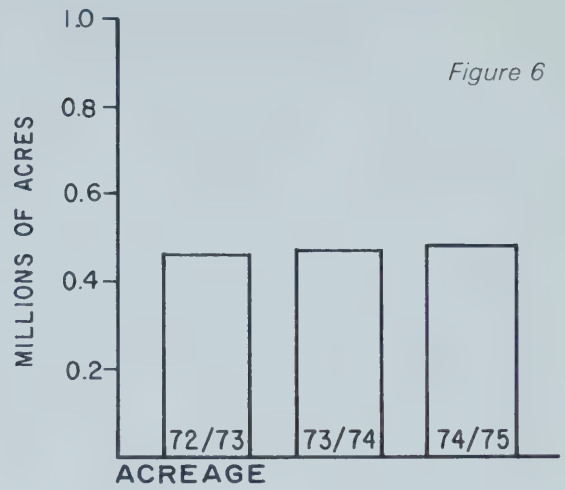
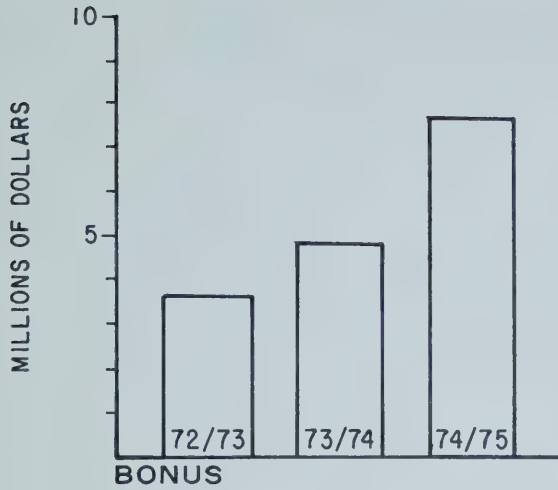


Figure 6

RESERVATIONS

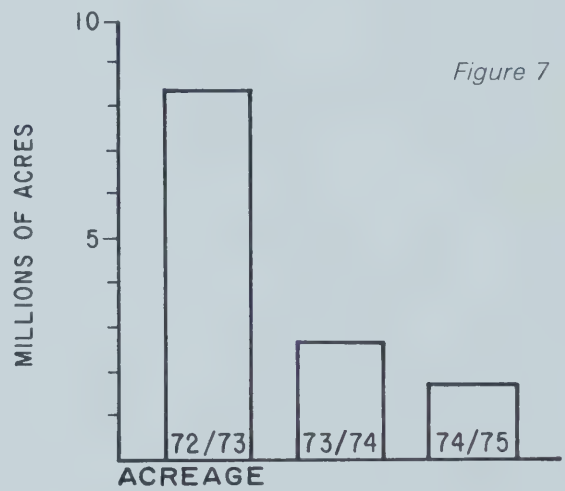
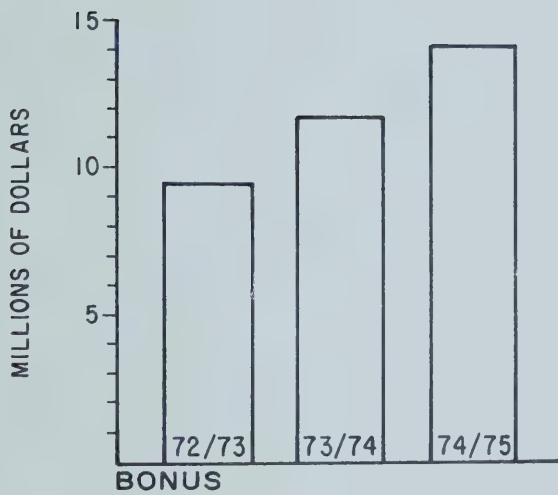


Figure 7

PERMITS

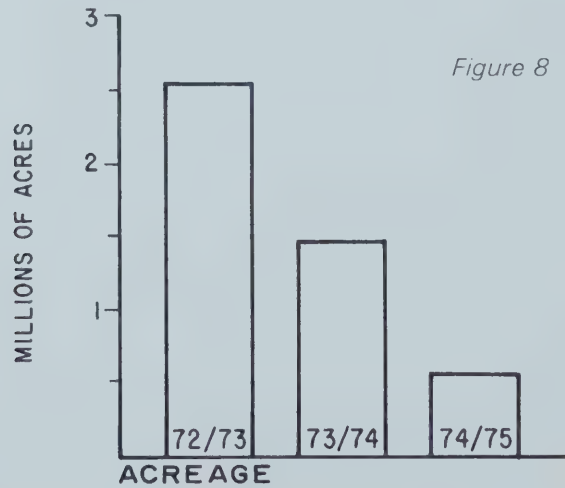
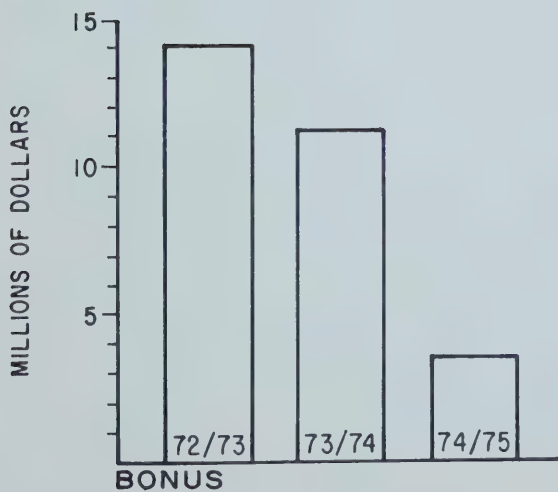


Figure 8

MINERAL PRODUCTION FROM CROWN LEASES OTHER THAN PETROLEUM AND NATURAL GAS

Type of Mineral	1973-74	1974-75
Coal *	6,922,051 Tons	7,066,472 Tons
Limestone and Shale	1,772,097 Tons	1,933,956 Tons
Clay	21,111 Cu. Yds.	31,579 Cu. Yds.
Sandstone	447,338 Tons	400,554 Tons
Salt	99,782 Tons	108,347 Tons
Sodium Sulphate	67,204 Tons	75,063 Tons

* *Tonnage subject to royalty*

In addition, 213 Troy ounces of gold and 17 Troy ounces of silver were recovered during the fiscal year from sand and gravel operations conducted in the Province.

NUMBER OF MINERAL LEASES

Figure 10

Type of Lease	Active at April 1 1974	Issued	Reinstated	Divided	Cancelled	Renewed	Active at March 31 1975
Petroleum and Natural Gas	34,197	3,687	13	260	2,429	—	35,728
Natural Gas	1,394	188	—	22	98	—	1,506
Petroleum	23	5	—	—	—	—	28
Coal	2,098	548	—	1	125	13	2,509
Road Allowance Coal	374	29	—	—	—	4	399
Quarrying	97	4	—	—	4	2	95
Salt	2	4	—	—	—	—	6
Bituminous Sands	84	—	—	—	—	—	84
Oil Sands	62	3	—	—	—	—	65
Iron	5	—	—	—	—	—	5
Sodium Sulphate	2	—	—	—	—	—	2
Quartz Minerals	7	—	—	—	—	—	7
Miscellaneous	12	2	—	—	—	1	13
TOTAL	<u>38,357</u>	<u>4,470</u>	<u>13</u>	<u>283</u>	<u>2,656</u>	<u>20</u>	<u>40,447</u>

ACREAGE CONTAINED IN ABOVE LEASES

Figure 11

Type of Lease	Active at April 1 1974	Issued	Reinstated	Cancelled	Renewed	Active at March 31, 1975
Petroleum and Natural Gas	43,556,697	5,393,839	18,720	2,665,462	—	46,303,794
Natural Gas	5,340,954	904,820	—	504,504	—	5,741,270
Petroleum	59,003	1,760	—	—	—	60,763
Coal	2,505,472	839,649	—	296,751	4,242	3,044,128
Quarrying	19,441	623	—	539	143	19,382
Salt	1,204	2,226	—	—	—	3,430
Bituminous Sands	2,695,045	—	—	—	—	2,695,045
Oil Sands	1,686,011	102,718	—	—	—	1,788,729
Iron	40,057	—	—	—	—	40,057
Sodium Sulphate	2,157	—	—	—	—	2,157
Quartz Minerals	15,544	—	—	—	—	15,544
Miscellaneous	1,448	1,052	—	—	92	2,408
TOTAL	<u>55,923,033</u>	<u>7,246,687</u>	<u>18,720</u>	<u>3,467,256</u>	<u>4,477</u>	<u>59,716,707</u>

STATEMENT OF BUSINESS TRANSACTED, 1974-1975

PETROLEUM AND NATURAL GAS

	Number	Acres
Leases Issued	3,687	5,393,839
Leases cancelled and relinquished	2,429	2,665,462
Leases reinstated	13	18,720
Reservations issued	138	2,033,653
Reservations terminated	195	6,719,866
Crown reserve drilling reservations issued	87	707,297
Crown reserve drilling reservations terminated	115	912,866
Permits issued	64	561,480
Permits terminated	208	2,242,920
Natural gas licences issued	29	312,480
Natural gas licences terminated	28	369,662
Crown reserve natural gas licences issued	29	490,179
Crown reserve natural gas licences terminated	23	339,553
Natural gas leases issued	188	904,820
Natural gas leases cancelled and relinquished	98	504,504
Petroleum leases issued	5	1,760

Figure 13

COAL

	Number	Acres
Leases issued	548	839,649
Leases cancelled and relinquished	125	296,751
Road allowance leases issued	29	—

Figure 14

QUARRYING

	Number	Acres
Leases issued	4	623
Leases cancelled and relinquished	4	539

Figure 15

MISCELLANEOUS

	Number
Oil sands prospecting permits issued	8
Oil sands prospecting permits cancelled	5
Oil sands leases issued	3
Quartz mineral exploration permits issued	7
Quartz mineral exploration permits terminated	2
Salt leases issued	4
Special mineral leases issued	2
Gold recovery permits issued	3
Quartz —	
Certificates of record issued	42
Certificates of record continued	58

**Economic Planning &
Systems Division**



ECONOMIC PLANNING & SYSTEMS DIVISION

Report of the Director

M.F. Kanik

The Economic Planning and Systems Division was formed February 10, 1975 by the transfer of data systems, the library and other information functions from the Mineral Resources Planning group. In addition, the Registrar's section was transferred from the Minerals Division to complete the centralization of the department's information role. At the same time, the economic and financial analysis section was enlarged.

Formal organization of the library was begun in the fall with cataloguing and classification of the book collection and recording of periodical holdings. Liaison was established with other libraries in the form of ongoing committee work and interlibrary loans, and a monthly bulletin was begun to inform depart-

ment staff of new acquisitions.

One of the objectives of the new Division is to provide information about mineral resources which includes computer retrieval of detail contained in approximately 50,000 agreements administered by Mines and Minerals. This will make for easier administration and enable the department to respond quicker to the needs of the public.

The Economic Planning unit of the Division will continue to direct and expand its studies in economic and financial analysis. Results from these studies will be used to provide advice to the Alberta government so that policy can be made and legislation passed in the important and changing matter of mineral resources.

Finance
Division

Alberta

MINES AND MINERALS

FINANCE DIVISION

Report of the Director of Finance

L.H. MONTGOMERY, C.A.

The Finance Division's prime responsibility is the calculation, collection and verification of petroleum and natural gas royalties. These royalties amounted to \$1,187 million for the year ended March 31, 1975. The Division also collects lease rentals, mineral taxes, sales of Crown reserves and incidental revenues and provides accounting and budgetary services.

Revenues totalled \$1,387 million for the year ended March 31, 1975, an increase of \$798 million, or 136% over 1974. Petroleum and natural gas royalties increased \$821 million, with a decrease of \$23 million experienced in freehold mineral taxes as a result of a revised assessment and mill rate. Drilling incentive credits totalled \$15 million, an increase of \$5 million, or 51% over 1974.

Expenditures totalled \$6 million for the year ended March 31, 1975, an increase of \$355,000 or 6% over 1974. Anticipated increases were largely offset by reduced spending on the Suffield Evaluation Program.

The increase in revenues was a direct result of new Government Legislation relating royalty revenues to increased prices for petroleum and natural gas. An indication of the size of revenues being realized is that, of the \$5,789 million total revenues collected since 1949, \$1,387

million, or 24%, has been collected in the current year. Emphasis on increased revenues has necessitated a complete change in the traditional accounting and collection methods previously employed by the department.

The entire petroleum royalty function has been computerized with petroleum royalty calculated on well production provided by the Energy Resources Conservation Board. Petroleum royalty is collected in kind by the Alberta Petroleum Marketing Commission with the proceeds of sale deposited to the credit of the department. The calculation and accounting for differences with Industry is entirely controlled by the Finance Division.

The G1 system of calculating natural gas and associated co-products royalty was introduced during the fiscal year. This has also been fully computerized enabling data relating to production, sales and royalty calculation to be available on demand for royalty and information purposes.

The responsibility for handling increased revenue will necessitate the strengthening of present audit systems and procedures. It will be our intention to computerize data associated with lease rentals and mineral taxes in the coming year and improve the method of handling cash receipts.

ALBERTA MINES AND MINERALS
SCHEDULE OF REVENUES
FOR THE YEAR ENDED MARCH 31, 1975
(WITH COMPARATIVE FIGURES FOR 1974)
(000'S)

	1974	1975	INCREASE (DECREASE)
P. & N. G. Oil Royalty	\$302,123	\$ 956,437	\$654,314
P. and N. G. Gas and Gas Product Royalty	70,035	231,493	161,458
P. & N. G. Lease Rental, Etc.	51,441	52,396	955
Bituminous Sands Oil Royalty	8,177	13,869	5,692
Bituminous Sands Lease Rental, Etc.	1,527	2,220	693
Coal Royalty	676	710	34
Coal Lease Rental, Etc.	3,484	3,447	(37)
Sale of Crown Reserves	81,707	80,911	(796)
Petroleum and Freehold Tax	69,074	45,355	(23,719)
Other	321	386	65
	<u>\$588,565</u>	<u>\$1,387,224</u>	<u>\$798,659</u>
Drilling Incentive Credits	10,128	15,251	5,123
	<u><u>\$578,437</u></u>	<u><u>\$1,371,973</u></u>	<u><u>\$793,536</u></u>

ALBERTA MINES AND MINERALS
SCHEDULE OF EXPENDITURE BY APPROPRIATION
FOR THE YEAR ENDED MARCH 31, 1975.
(WITH COMPARATIVE FIGURES FOR 1974)
(000'S)

APPN	DESCRIPTION	1974	1975	INCREASE (DECREASE)
2001	Minister's Office	\$ 84	\$ 140	\$ 56
2002	General Administration	3,081	1,299	(1,782)
2003	Finance Division	439	1,035	596
2004	Minerals Division	1,277	1,400	123
2005	Research & Planning	711	1,327	616
2006	Alberta Petroleum Marketing Commission	130	876	746
		<u>\$5,722</u>	<u>\$6,077</u>	<u>\$ 355</u>

ALBERTA MINES AND MINERALS

SCHEDULE OF EXPENDITURE BY OBJECT FOR THE YEAR ENDED MARCH 31, 1975. (WITH COMPARATIVE FIGURES FOR 1974) (000'S)

<u>OBJECT</u>	<u>1974</u>	<u>1975</u>	<u>INCREASE (DECREASE)</u>
Salaries & Benefits	\$1,683	\$2,019	\$ 336
Contracts and Agreements	2,436	986	(1,450)
Fees & Commissions	722	874	152
Grants	345	672	327
Refunds & Remissions	75	196	121
Material & Supplies	104	99	(5)
Furniture & Equipment	25	78	53
Wages	47	83	36
Travel	44	63	19
Telephone	26	26	—
Rentals	32	43	11
Sundry	53	62	9
Alberta Petroleum Marketing Commission	130	876	746
	<u>\$5,722</u>	<u>\$6,077</u>	<u>\$ 355</u>

